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(57) **Abstract**
Technical problem Also as opposed to the keyword which that it is necessary to

perform neither check nor redo of utterance even if incorrect recognition occurs, a retrieval precision equivalent to a case with redo of a check or utterance being acquired, and a check cannot carry out easily When the retrieval result which a user's certainly needs being obtained, and two or more retrieval results are obtained, The record medium which recorded the possible system to offer information, the information offer approach, information distribution program, and information distribution program of being able to offer a retrieval result in the sequence which the user needs, or the sequence near it and in which computer reading is possible is offered.

Means for Solution Two or more candidates are extracted without specifying a recognition result as one. A retrieval type is generated and searched based on those candidates. Furthermore, from the score at the time of recognition, a retrieval-type score is computed and a retrieval result is shown according to it.

Selection Fig. drawing 1

Claim(s)

Claim 1

A speech recognition means to recognize the inputted voice,
A retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means,
A retrieval means to search a database by said two or more retrieval types,
The retrieval result rearrangement means which rearranges the retrieval result by said retrieval means by priority,
A system to offer information equipped with an information output means to output the retrieval result by said retrieval type said whose priority is the priority beyond a predetermined threshold.

Claim 2

A speech recognition means to recognize the inputted voice,
A retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means,
The retrieval type rearrangement means which rearranges said two or more retrieval types by the priority, and a retrieval means to search a database by the retrieval type which is the priority beyond a predetermined threshold among said two or more retrieval types,
A system to offer information equipped with an information output means to output the retrieval result by said retrieval means.

Claim 3

The speech recognition process which recognizes the inputted voice,
The retrieval type generation process which generates two or more retrieval types at which each has priority from the recognition result in said speech recognition process,
The search procedure which searches a database by said two or more retrieval types,
The retrieval result rearrangement process which rearranges the retrieval result in said search procedure by priority,
The information offer approach equipped with the information output process which outputs the retrieval result by said retrieval type said whose priority is the priority beyond a predetermined threshold.

Claim 4

The speech recognition process which recognizes the inputted voice,
The retrieval type generation process which generates two or more retrieval types at which each has priority from the recognition result in said speech recognition process,
The retrieval type rearrangement process which rearranges said two or more retrieval

types by the priority, and the search procedure which searches a database by the retrieval type which is the priority beyond a predetermined threshold among said two or more retrieval types,
The information offer approach equipped with the information output process which outputs the retrieval result in said search procedure.

Claim 5

Computer,
A speech recognition means to recognize the inputted voice,
A retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means,
A retrieval means to search a database by said two or more retrieval types,
the retrieval result rearrangement means which rearranges the retrieval result by said retrieval means by priority -- and
The information distribution program operated as an information output means to output the retrieval result by said retrieval type said whose priority is the priority beyond a predetermined threshold.

Claim 6

Computer,
A speech recognition means to recognize the inputted voice,
A retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means,
The retrieval type rearrangement means which rearranges said two or more retrieval types by the priority,
a retrieval means to search a database by the retrieval type which is the priority beyond a predetermined threshold among said two or more retrieval types -- and
The information distribution program operated as an information output means to output the retrieval result by said retrieval means.

Claim 7

Computer,
A speech recognition means to recognize the inputted voice,
A retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means,
A retrieval means to search a database by said two or more retrieval types,
the retrieval result rearrangement means which rearranges the retrieval result by said retrieval means by priority -- and
The record medium which recorded the information distribution program operated as an information output means to output the retrieval result by said retrieval type said whose priority is the priority beyond a predetermined threshold and in which computer reading is possible.

Claim 8

Computer,
A speech recognition means to recognize the inputted voice,
A retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means,
The retrieval type rearrangement means which rearranges said two or more retrieval types by the priority,
a retrieval means to search a database by the retrieval type which is the priority beyond a predetermined threshold among said two or more retrieval types -- and
The record medium which recorded the information distribution program operated as an information output means to output the retrieval result by said retrieval means and in which computer reading is possible.

Detailed Description of the Invention

0001

Field of the Invention

This invention relates to the record medium which recorded the system to offer information, the information offer approach, the information distribution program, and the information distribution program and in which computer reading is possible.

0002

Description of the Prior Art

The database has large-scale-ized by current, IT-izing, and the spread of the Internet. Moreover, by the spread of cellular phones etc., such information is accessed even from where always and the needs which receive information are increasing.

0003

Moreover, although the system which refers to voice by inputting a retrieval keyword, and outputs the result with voice is developed, since a retrieval result becomes zero affair from the retrieval type generated by the keyword which is not right by constraint of the contents of the database in many cases when referring to two or more keywords, it is effective in selection of a keyword to give redundancy.

0004

Problem(s) to be Solved by the Invention

However, in case a large-scale database is searched with voice, since it is a large vocabulary, recognition precision may fall.

0005

Moreover, when incorrect recognition occurs, the next candidate is shown and checked or redo of utterance is needed.

0006

Therefore, in the conventional system to offer information, such a case increased, and task achievement took time amount, and it had become a user with the burden.

0007

The word which was alike when it became a large vocabulary increases, and it becomes impossible moreover, for a user to check certainly. Consequently, there was a case where it referred to the mistaken keyword.

0008

Even if it was made in order that this invention might solve the technical problem of the above-mentioned conventional technique, and incorrect recognition occurs Also as opposed to the keyword which that it is necessary to perform neither check nor redo of utterance, a retrieval precision equivalent to a case with redo of a check or utterance being acquired, and a check cannot carry out easily When the retrieval result which a user's certainly needs being obtained, and two or more retrieval results are obtained, It aims at offering the record medium which recorded the possible system to offer information, the information offer approach, information distribution program, and information distribution program of being able to offer a retrieval result in the sequence which the user needs, or the sequence near it and in which computer reading is possible.

0009

Means for Solving the Problem

In order to attain the above-mentioned purpose, the system to offer information concerning this invention A speech recognition means to recognize the inputted voice, and a retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means, It has an information output means to output a retrieval means to search a database by said two or more retrieval types, the retrieval result rearrangement means which rearranges the retrieval result by said retrieval means by priority, and the retrieval result by said retrieval type said whose priority is the priority beyond a predetermined threshold.

0010
Moreover, a speech recognition means to recognize the voice which inputted the system to offer information concerning this invention, A retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means, It has the retrieval type rearrangement means which rearranges said two or more retrieval types by the priority, a retrieval means to search a database by the retrieval type which is the priority beyond a predetermined threshold among said two or more retrieval types, and an information output means to output the retrieval result by said retrieval means.

0011
Furthermore, the speech recognition process which recognizes the voice which inputted the information offer approach concerning this invention, The retrieval type generation process which generates two or more retrieval types at which each has priority from the recognition result in said speech recognition process, It has the information output process which outputs the search procedure which searches a database by said two or more retrieval types, the retrieval result rearrangement process which rearranges the retrieval result in said search procedure by priority, and the retrieval result by said retrieval type said whose priority is the priority beyond a predetermined threshold.

0012
Moreover, the speech recognition process which recognizes the voice which inputted the information offer approach concerning this invention, The retrieval type generation process which generates two or more retrieval types at which each has priority from the recognition result in said speech recognition process, It has the retrieval type rearrangement process which rearranges said two or more retrieval types by the priority, the search procedure which searches a database by the retrieval type which is the priority beyond a predetermined threshold among said two or more retrieval types, and the information output process which outputs the retrieval result in said search procedure.

0013
Furthermore, the information distribution program concerning this invention From the recognition result by speech recognition means to recognize the voice which inputted the computer, and said speech recognition means A retrieval type generation means to generate two or more retrieval types at which each has priority, A retrieval means to search a database by said two or more retrieval types, the retrieval result rearrangement means which rearranges the retrieval result by said retrieval means by priority, And it is made to function as an information output means to output the retrieval result by said retrieval type said whose priority is the priority beyond a predetermined threshold.

0014
Moreover, a speech recognition means to recognize the voice into which the information distribution program concerning this invention inputted the computer, A retrieval type generation means to generate two or more retrieval types at which each has priority from the recognition result by said speech recognition means, It is made to function as a retrieval means to search a database by the retrieval type which is the priority beyond a predetermined threshold among the retrieval type rearrangement means which rearranges said two or more retrieval types by the priority, and said two or more retrieval types, and an information output means to output the retrieval result by said retrieval means.

0015
Furthermore, the record medium which recorded the information distribution program concerning this invention and in which computer reading is possible From the recognition result by speech recognition means to recognize the voice which inputted the computer, and said speech recognition means A retrieval type generation means to

generate two or more retrieval types at which each has priority, A retrieval means to search a database by said two or more retrieval types, the retrieval result rearrangement means which rearranges the retrieval result by said retrieval means by priority, And said priority recorded the information distribution program operated as an information output means to output the retrieval result by said retrieval type which is the priority beyond a predetermined threshold.

0016

Moreover, the record medium which recorded the information distribution program concerning this invention and in which computer reading is possible From the recognition result by speech recognition means to recognize the voice which inputted the computer, and said speech recognition means A retrieval type generation means to generate two or more retrieval types at which each has priority, The retrieval type rearrangement means which rearranges said two or more retrieval types by the priority, The information distribution program operated as a retrieval means to search a database by the retrieval type which is the priority beyond a predetermined threshold among said two or more retrieval types, and an information output means to output the retrieval result by said retrieval means was recorded.

0017

Here, priority is determined by the score of the keyword contained in each voice, ranking, and the weight for every attribute set up beforehand. The point of the decision of this priority is explained in detail below.

0018

The above which may be used in order to determine the priority of the recognition result in this invention

It is the numeric value showing the reliability for every recognition result which a speech recognition means (it is hereafter described also as a recognition engine) outputs as "the score of a keyword." This numeric value is computed inside a recognition engine.

0019

Next, the above "ranking of a keyword" which may be used in order to determine the priority of the recognition result in this invention is explained. Generally a recognition engine outputs two or more recognition results. The above-mentioned score is taking lessons from each of two or more of these recognition results, and this shows **the ranking of the probability of a recognition result** .

0020

It can be set up how many a recognition result is outputted. However, what has a too low score does not bring a recognition result, but the recognition result below the set-up number may be obtained.

0021

Next, the above "the weight for every attribute" which may be used in order to determine the priority of the recognition result in this invention is explained.

0022

"The weight for every attribute" is a certain scene of it being set up for every application and performing speech recognition, and it means of which attribute a keyword is easy to be uttered.

0023

For example, as a result of the application's analyzing the attribute of the keyword by which past utterance was carried out, suppose that the attribute A was 80% and the attribute B was 20%.

0024

Weight is attached to **** of hanging 0.8 if the keyword of a recognition result is an attribute A at this time, and hanging 0.2 if it is an attribute B.

0025

Next, the decision approach of priority in this invention is explained. As for the retrieval-

type score obtained by the recognition result, the weight of X and its attribute B is calculated for it by XxY, when the score of a certain recognition result A is Y. The high order of this score is the high order of priority.

0026

When two or more keywords are contained in a certain utterance, a score becomes the sum of each retrieval type (above-mentioned XxY).

0027

Example: When two tickets from Station A to Station B are bought at Station A
* Be related with a name of the station.
Attribute X "a nearby station": The name of the station which is in less than ten stations from Station B. Tokyo, Kanda ...
Attribute Y "a long distance station": Names of the stations other than the above. Takasaki, Urawa, Kyoto ...
It carries out. 0.7 is attached to an attribute X, and the weight of 0.3 is attached to an attribute Y noting that the percentage that the ticket of a nearby station sells is 70%.

0028

* Be related with number of sheets.
Attribute U "one Sheet": 1 sheet
Attribute V "Sheet **two or more** ": 2 sheet, three sheets ...
It carries out. As 90%, the rate that one sheet sells attaches 0.9 to an attribute U, and attaches the weight of 0.1 to an attribute V.

0029

It supposes that there was utterance called a name of the station "Tokyo" and number of sheets "one sheet", and suppose that the degree was obtained as a result of recognition.

0030

Name of the station :
Recognition result #1 "Kyoto" score 72 21.6
Recognition result #2 "Tokyo" score 69 48.3
Number of sheets :
Recognition result #1 "one-sheet" score 67 60.3
Recognition result #2 "two sheets" score 61 6.1

0031

Here, numeric values behind the above-mentioned score, such as 21.6, 48.3, 60.3, and 6.1, mean the rate (frequency of occurrence) whose ticket sells well.

0032

And it can consider as the table which associates the rate which this ticket receives, and weight, for example, the following tables can be mentioned.

0033

Name-of-the-station table

Name of the station Issue-of-banknotes number of sheets Ratio to all issue-of-banknotes number of sheets
Tokyo 3924 48.3
Kyoto 1755 21.6
Shin-Oosaka 1285 15.8
Nagoya 873 10.7
...
Total 8124 100.0

0034

Number-of-sheets table

Number of sheets Count of the issue of banknotes Ratio to all the counts of the issue of banknotes
1 3564 60.3

3 1933 32.7
2 361 6.1
...
Total 5910 100.0

0035

In the upper example, this "ratio to all issue-of-banknotes number of sheets" and "the ratio to all the counts of the issue of banknotes" are used for weight.

0036

And it is although it is the calculation approach of a final score,
"Final score = recognition score + multiplier x weight"
The said approach is also considered. A recognition score is thought as important fundamentally and about 0.1 are appropriate to a multiplier in many cases. Of course, a multiplier cannot be limited to 0.1 and can also adopt other numeric values. And the basis of the above-mentioned conditions and each retrieval type are as follows.

0037

Retrieval type #1"name-of-the-station = Kyoto and number-of-sheets =1 sheet"
Retrieval type score =72*0.3+67*0.9=81.9
Retrieval type #2"name-of-the-station = Kyoto and number-of-sheets =2 sheet"
Retrieval type score =72*0.3+61*0.1=27.7

0038

Retrieval type #3"name-of-the-station = Tokyo and number-of-sheets =1 sheet"
Retrieval type score =69*0.7+67*0.9=108.6
Retrieval type #4"name-of-the-station = Tokyo and number-of-sheets =2 sheet"
Retrieval type score =69*0.7+61*0.1=54.4

0039

After all, it is the priority of a retrieval type,
Retrieval type #3"name-of-the-station = Tokyo and number-of-sheets =1 sheet 108.6"
Retrieval type #1"name-of-the-station = Kyoto and number-of-sheets =1 sheet 81.9"
Retrieval type #4"name-of-the-station = Tokyo and number-of-sheets =2 sheet 54.4"
Retrieval type #2"name-of-the-station = Kyoto and number-of-sheets =2 sheet 27.7"
It becomes.

0040

Embodiment of the Invention

With reference to a drawing, the gestalt of suitable implementation of this invention is explained in detail in instantiation below. However, the dimension of the component part indicated by the gestalt of this operation, the quality of the material, a configuration, its relative configuration, etc. are not the things of those meanings limited to seeing about the range of this invention, as long as there is no specific publication especially.

0041

Moreover, in the following drawings, the same number is given to the components indicated by the drawing as stated above and the same components. Moreover, explanation of each operation gestalt of the system to offer information concerning this invention explained below serves as explanation of each operation gestalt of the record medium which recorded the information offer approach, information distribution program, and information distribution program concerning this invention and in which computer reading is possible.

0042

(1st operation gestalt of a system to offer information)
Hereafter, the 1st operation gestalt of the system to offer information concerning this invention is explained with reference to a drawing.

0043

First, the outline of the actuation in the 1st operation gestalt of the system to offer information concerning this invention is explained with reference to drawing 1 and

drawing 2 . Drawing 1 is the conceptual diagram which can be set in the 1st operation gestalt of the system to offer information concerning this invention and in which showing the 1st example of the concept of the retrieval from two or more recognition results, and drawing 2 is the conceptual diagram which can be set in the 1st operation gestalt of the system to offer information concerning this invention and in which showing the 2nd example of the concept of the retrieval from two or more recognition results.

0044

First, the 1st example of the concept of the retrieval from two or more recognition results which can be set in the 1st operation gestalt of the system to offer information concerning this invention is explained with reference to drawing 1 . As shown in drawing 1 (a), a user's utterance presupposes that it was what consists of "A" and a part of "1."

0045

Under the present circumstances, the part of "A" is a part of the 1st utterance and is also called slot 1 below. Similarly, the part of "1" is a part of the 2nd utterance and is also called slot 2 below.

0046

In addition, although it is explained in the example shown in drawing 1 that a user's utterance consists of two parts, with this operation gestalt, in the case of two, the number of the parts of utterance of a user may not be limited, and may be the number of two or more arbitration.

0047

Next, as shown in drawing 1 (b), the system to offer information of this operation gestalt recognizes two, "A" and "B", as a recognition result of the part corresponding to a slot 1, and presupposes similarly that two, "4" and "1", have been recognized as a recognition result of the part corresponding to a slot 2. In addition, these "A", "B", "1", and "4" express the word of arbitration in fact.

0048

In addition, in the slot 1 and slot 2 of a recognition result, the 1st place of recognition results is "A" and "4", respectively, and the 2nd place of recognition results is "B" and "1."

0049

Next, with this operation gestalt, as shown in drawing 1 (c), the both sides of "1" and "4" are used as a candidate for retrieval of a slot 2, using the both sides of "A" and "B" as a candidate for retrieval of a slot 1.

0050

Consequently, if the system to offer information of this operation gestalt searches a database as shown in drawing 1 (d), the retrieval result corresponding to a user's utterance will be outputted.

0051

Namely, in the recognition result shown in drawing 1 (b), although a retrieval result will become zero in the database shown in drawing 1 (d) since a retrieval type becomes only a thing corresponding to "A" and "4" if only the 1st place only of a recognition result is used With this operation gestalt, the retrieval result corresponding to a user's utterance can be outputted by using the retrieval type shown in drawing 1 (c).

0052

Next, the 2nd example of the concept of the retrieval from two or more recognition results which can be set in the 1st operation gestalt of the system to offer information concerning this invention is explained with reference to drawing 2 .

0053

However, in explanation of drawing 2 , since explanation of drawing 2 (a), drawing 2 (b), and drawing 2 (c) is the same as explanation of above-mentioned drawing 1 (a), drawing 1 (b), and drawing 1 (c), the explanation is omitted.

0054
Unlike the 1st above-mentioned example, in the 2nd example of the retrieval concept shown in drawing 2 , the part corresponding to "B" and "4" has joined the database shown in drawing 2 (d).
0055
Consequently, if a database is searched with the retrieval type shown in drawing 2 (c), as shown in drawing 2 (d), not only the retrieval result of "A" and "1" but the retrieval result of "B" and "4" will be outputted, and a user will be shown.
0056
Although the retrieval result of this "B" and "4" is as a result of **which is not right for a user** recognition, it can offer more retrieval results to a user, and can raise the rate and precision of retrieval as a result.
0057
As mentioned above, although a database is searched with the retrieval concept of this operation gestalt after inputting two or more conditions, a retrieval result will not come out of many of retrieval conditions generated from the word which it is not as a result of **original** recognition.
0058
And the data which appeared in the retrieval result accidentally and which are not the original purpose are shown to a user, and make a right thing choose. This causes incorrect recognition, and it becomes quick rather than it redoes from the start.
0059
Next, the configuration of the 1st operation gestalt of the system to offer information concerning this invention is explained with reference to drawing 3 . Drawing 3 is the 1st whole operation gestalt block diagram of the system to offer information concerning this invention.
0060
The 1st operation gestalt of the system to offer information concerning this invention is equipped with the voice input section 301 into which voice is inputted, and the speech recognition section 302 which outputs one or more recognition results 303 from the inputted voice.
0061
Moreover, the system to offer information of this operation gestalt is equipped with the retrieval type generation section 304 which generates the retrieval type 305 from the inputted recognition result 303, and the retrieval section 306 which searches a database 307 using the retrieval type 305 generated in the retrieval type generation section 304.
0062
Here, in case it generates a retrieval type from two or more voice which the speech recognition section 302 has recognized, though the retrieval type generation section 304 generates the retrieval type by the combination of all recognition voice, it is good.
0063
Moreover, the system to offer information of this operation gestalt is equipped with the retrieval result sort section 309 which rearranges the retrieval result 308 from the retrieval section 306 according to fixed priority. In addition, with this operation gestalt, a score is used as priority so that it may explain below.
0064
Moreover, the system to offer information of this operation gestalt is equipped with the information output section 310 which outputs the retrieval result sorted in the retrieval result sort section 309.
0065
Next, actuation of the 1st operation gestalt of the system to offer information concerning this invention shown in drawing 3 is explained with reference to drawing 4 . Drawing 4 is the flow chart of actuation of the system to offer information shown in

drawing 3 .

0066

Here, in the flow chart shown in drawing 4 , a retrieval type is set to E (n) and S (n) and a retrieval result are set to R (n) for the score. the time of n being the number of a formula and making N into the number of formulas -- n= -- it is set to 1, 2, .., N. The threshold of the score of whether to use a retrieval type is set to St.

0067

As shown in drawing 4 , based on the voice which inputted first the 1st operation gestalt of the system to offer information concerning this invention into the voice input section 301, the speech recognition section 302 performs speech recognition (S401).

0068

Next, the retrieval type generation section 304 generates the retrieval type (E (n)) 305 based on the recognition result 303 which the speech recognition section 302 outputted (S402).

0069

Next, the retrieval section 306 is the retrieval type (E (n)) 305, and performs a search of a database 307 (S403).

0070

Next, the retrieval result sort section 309 sorts the retrieval result (R (n)) 308 outputted by the retrieval section 306 in descending order of the score (S (n)) (S404).

0071

Next, the information output section 310 substitutes 1 for n (S405), and judges whether it is more than St whose score **of each retrieval result R (n) sorted in the retrieval result sort section 309** S (n) is a predetermined threshold score (S406).

0072

Here, though the information output section 310 adds a score according to the number and operates the above S406 based on the number of the retrieval results searched by one retrieval type, it is good. For example, the retrieval result by the retrieval type is more preferentially outputted, so that there are many retrieval results obtained by one formula.

0073

And the information output section 310 outputs R (n), when it is S(n) >=St (S407), and when it is not S(n) >=St, it ends actuation.

0074

Next, 1 is incremented to n (S408), the information output section 310 judges whether n is larger than N (S409), and it will repeat processing of S406 to S409, and if it is not larger than n or N, if n is larger than N, it will finish actuation.

0075

(Example of the 1st operation gestalt of operation)

Next, the still more concrete example of the 1st operation gestalt of the system to offer information concerning above-mentioned this invention of operation is explained below.

0076

- Task

The case where it searches by inputting two keywords is mentioned as an example, and is considered.

The 1st keyword = classification

The 2nd keyword = identifier

Suppose that it came out. And a user presupposes that it spoke with classification = "an animal" and identifier = "LION." A system shall output detailed explanation to the keyword.

0077

- Recognition result

The recognition result of the 1st utterance

The 1st place: A keyword = animal, score =70
The 2nd place: Keyword = vegetation, score =65
The recognition result of the 2nd utterance
The 1st place: A keyword = Japanese radish, score =71
The 2nd place: Keyword = LION, score =62

0078

- Retrieval type

Each retrieval-type score is computed by the sum of the score of each recognition result.
retrieval type 1: -- classification = "animal" and identifier = "Japanese radish" score =141
retrieval type 2: -- classification = "animal" and identifier = "LION" score =132
retrieval type 3: -- classification = "vegetable" and identifier = "Japanese radish" score =136
retrieval type 4: -- classification = "vegetable" and identifier = "LION" score =127

0079

- Retrieval result output

The number of cases of a retrieval result
1:0 retrieval types
2:1 retrieval types "explanation of LION of an animal" Score 132
3:1 retrieval types "explanation of a vegetable Japanese radish" Score 136
4:0 retrieval types

0080

Here, in the above-mentioned retrieval result, although the number of cases is zero affair or one affair in each retrieval type, the number of cases of a retrieval result may not be limited to zero affair or one affair, but may be the number of cases other than zero affair or one affair.

0081

The contents of an output
The above-mentioned retrieval result is sorted and outputted by the score.
1st output : "explanation of a vegetable Japanese radish"
2nd output : "explanation of LION of an animal"

0082

And a user shall interrupt **then,** an output in the phase where the information on target was able to be acquired. In the case of this example of operation, a task is completed with the 2nd output.

0083

In addition, when a user judges that the target retrieval result was obtained and a user performs a certain input, it is good, though subsequent outputs are canceled and a task is made to complete.

0084

As mentioned above, since this is used for a retrieval type even if it is incorrect recognition, it can be managed with the 1st operation gestalt of the system to offer information concerning this invention even if it performs neither check nor redo of utterance.

0085

Moreover, with the 1st operation gestalt of the system to offer information concerning this invention, since it is used as a retrieval type when it has incorrect-recognized, the same retrieval precision as the case where there is redo of a check or utterance can be acquired.

0086

Moreover, with the 1st operation gestalt of the system to offer information concerning this invention, since a retrieval type is generable from two or more recognition results even if a check is a difficult vocabulary, the retrieval result which a user needs with high

possibility can be obtained.

0087

Moreover, in the 1st operation gestalt of the system to offer information concerning this invention, since it is sorted in order of a score and outputted when two or more retrieval results are obtained, the retrieval result can be offered in the same or near sequence as the sequence which the user needs.

0088

consequently, with the 1st operation gestalt of the system to offer information concerning this invention Since a recognition result is outputted from voice, a retrieval type is generated and the retrieval result is outputted based on the generated retrieval-type score from each recognition result, For a certain reason, the count of a check of a recognition result can be reduced, the leakage in retrieval can be mitigated, and even if it is also from two or more retrieval results that two or more retrieval results are outputted, it can obtain a right retrieval result quickly.

0089

(2nd operation gestalt of a system to offer information)

Next, the 2nd operation gestalt of the system to offer information concerning this invention is explained with reference to a drawing.

0090

First, about the concept of the retrieval from two or more recognition results which can be set in the 2nd operation gestalt of the system to offer information concerning this invention, since it is the same as that of the 1st example of the retrieval concept of the 1st operation gestalt explained with reference to above-mentioned drawing 1 and above-mentioned drawing 2 , or the 2nd example, the explanation is omitted.

0091

Next, the configuration of the 2nd operation gestalt of the system to offer information concerning this invention is explained with reference to drawing 5 . Drawing 5 is the 2nd whole operation gestalt block diagram of the system to offer information concerning this invention.

0092

The 2nd operation gestalt of the system to offer information concerning this invention is equipped with the voice input section 501 into which voice is inputted, and the speech recognition section 502 which outputs one or more recognition results 503 from the inputted voice.

0093

Moreover, the system to offer information of this operation gestalt is equipped with the retrieval type generation section 504 which generates the retrieval type 505 from the inputted recognition result 503.

0094

Here, in case it generates a retrieval type from two or more voice which the speech recognition section 502 has recognized, though the retrieval type generation section 504 generates the retrieval type by the combination of all recognition voice, it is good.

0095

Moreover, the system to offer information of this operation gestalt is equipped with the retrieval type sort section 506 which sorts the retrieval type 505 in order of the score which is priority.

0096

Moreover, the system to offer information of this operation gestalt is equipped with the retrieval section 508 which searches a database 509 using the retrieval type 507 outputted from the retrieval type sort section 506.

0097

Moreover, the system to offer information of this operation gestalt is equipped with the information output section 511 which outputs the retrieval result 510 outputted from the

retrieval section 508.

0098

Next, actuation of the 2nd operation gestalt of the system to offer information concerning this invention shown in drawing 5 is explained with reference to drawing 6 . Drawing 6 is the flow chart of actuation of the system to offer information shown in drawing 5 .

0099

Here, in the flow chart shown in drawing 6 , a retrieval type is set to E (n) and S (n) and a retrieval result are set to R (n) for the score. the time of n being the number of a formula and making N into the number of formulas -- n= -- it is set to 1, 2, .., N. The threshold of the score of whether to use a retrieval type is set to St.

0100

As shown in drawing 6 , based on the voice which inputted first the 2nd operation gestalt of the system to offer information concerning this invention into the voice input section 501, the speech recognition section 502 performs speech recognition (S601).

0101

Next, the retrieval type generation section 504 generates the retrieval type (E (n)) 505 based on the recognition result 503 which the speech recognition section 502 outputted (S602).

0102

Next, the retrieval type sort section 506 sorts the retrieval type (E (n)) 505 in descending order of S (n), and outputs the retrieval type 507.

0103

Next, the retrieval section 508 substitutes 1 for n (S604), and judges whether it is more than St whose score **of each retrieval result R (n)** S (n) is a predetermined threshold score (S605).

0104

And the retrieval section 508 shifts to S606, when it is S(n) >=St, and when it is not S(n) >=St, it ends actuation.

0105

In S606, the retrieval section 508 is E (n), performs a search of a database 509 and outputs retrieval result R(n)510 to the information output section 511.

0106

Next, the information output section 511 outputs retrieval result R (n) (S607).

0107

Next, 1 is incremented to n (S608), the information output section 511 judges whether n is larger than N (S609), and it will repeat processing of S606 to S609, and if it is not larger than n or N, if n is larger than N, it will finish actuation.

0108

(Example of the 2nd operation gestalt of operation)

Next, the still more detailed example of the 2nd operation gestalt of the system to offer information concerning above-mentioned this invention of operation is explained hereafter.

0109

- Task

The case where it searches by inputting two keywords is mentioned as an example, and is considered.

The 1st keyword = classification

The 2nd keyword = identifier

Suppose that it came out. And a user presupposes that it spoke with classification = "an animal" and identifier = "LION." A system shall output detailed explanation to the keyword.

0110

- Recognition result
The recognition result of the 1st utterance
The 1st place: A keyword = animal, score =70
The 2nd place: Keyword = vegetation, score =65
The recognition result of the 2nd utterance
The 1st place: A keyword = Japanese radish, score =71
The 2nd place: Keyword = LION, score =62

0111

- Retrieval type
Each retrieval-type score is computed by the sum of the score of each recognition result.
retrieval type 1: -- classification = "animal" and identifier = "Japanese radish" score =141
retrieval type 2: -- classification = "animal" and identifier = "LION" score =132
retrieval type 3: -- classification = "vegetable" and identifier = "Japanese radish" score =136
retrieval type 4: -- classification = "vegetable" and identifier = "LION" score =127
In this example of operation, the above-mentioned retrieval type is sorted in descending order of a score.
1st ranking retrieval type 1: -- classification = "animal" and identifier = "Japanese radish" score =141
2nd ranking retrieval type 3: -- classification = "vegetable" and identifier = "Japanese radish" score =136
3rd ranking retrieval type 2: -- classification = "animal" and identifier = "LION" score =132
4th ranking retrieval type 4: -- classification = "vegetable" and identifier = "LION" score =127

0112

- Retrieval result output
In this example of operation, a retrieval result is outputted in order of the retrieval result by which the sort was carried out **above-mentioned** .
Retrieval result of the 1st ranking 1:0 retrieval types
Retrieval result of the 2nd ranking 3:1 retrieval types "explanation of a vegetable Japanese radish" Score 136
Retrieval result of the 3rd ranking 2:1 retrieval types "explanation of LION of an animal" Score 132
Retrieval result of the 4th ranking 4:0 retrieval types

0113

Here, in the above-mentioned retrieval result, although the number of cases is zero affair or one affair in each retrieval type, the number of retrieval results may not be limited to zero affair or one affair, but may be the number of cases other than zero affair or one affair.

0114

The contents of an output
1st output : "explanation of a vegetable Japanese radish"
2nd output : "explanation of LION of an animal"

0115

And a user shall interrupt **then,** an output in the phase where the information on target was able to be acquired. In the case of this example of operation, a task is completed with the 2nd output.

0116

In addition, when a user judges that the target retrieval result was obtained and a user performs a certain input, it is good, though subsequent outputs are canceled and a task is made to complete.

0117
As mentioned above, since this is used for a retrieval type even if it is incorrect recognition, it can be managed with the 2nd operation gestalt of the system to offer information concerning this invention even if it performs neither check nor redo of utterance.
0118
Moreover, with the 2nd operation gestalt of the system to offer information concerning this invention, since it is used as a retrieval type when it has incorrect-recognized, the same retrieval system as the case where there is redo of a check or utterance can be acquired.
0119
Moreover, with the 2nd operation gestalt of the system to offer information concerning this invention, since a retrieval type is generable from two or more recognition results even if a check is a difficult vocabulary, the retrieval result which a user needs with high possibility can be obtained.
0120
Moreover, in the 2nd operation gestalt of the system to offer information concerning this invention, since it is sorted in order of a score and outputted when two or more retrieval results are obtained, the retrieval result can be offered in the same or near sequence as the sequence which the user needs.
0121
consequently, with the 2nd operation gestalt of the system to offer information concerning this invention Since a recognition result is outputted from voice, a retrieval type is generated and the retrieval result is outputted based on the generated retrieval-type score from each recognition result, For a certain reason, the count of a check of a recognition result can be reduced, the leakage in retrieval can be mitigated, and even if it is also from two or more retrieval results that two or more retrieval results are outputted, it can obtain a right retrieval result quickly.
0122
(Example of application of the system to offer information concerning this invention)
Next, the example of application of each operation gestalt of the system to offer information concerning above-mentioned this invention is explained with reference to a drawing. The schematic diagram of the 2nd example of the example of application of each operation gestalt of the system to offer information which the schematic diagram of the 1st example of the example of application of each operation gestalt and drawing 8 require for this invention of the system to offer information which drawing 7 requires for this invention shown in drawing 3 and drawing 5 shown in drawing 3 and drawing 5 , and drawing 9 are the schematic diagrams of the 3rd example of the example of application of each operation gestalt of the system to offer information concerning this invention shown in drawing 3 and drawing 5 .
0123
((The 1st example) The example of application)
In the example 1 of application shown in drawing 7 , each operation gestalt of the system to offer information concerning this invention is equipped with a cellular phone 701, the base station 702, the network 703, the server 704, and the database 705.
0124
A cellular phone 701 is a terminal which a user owns, and information can be delivered and received by wireless through a base station 702.
0125
A base station 702 receives an electric wave from a cellular phone 701, and sends an electric wave to a cellular phone 701.
0126
The base station 702 is connected with the server 704 through the network 703. The

server 704 is equipped with the database 705.

0127

This network 703 is good though wireless is used in a part or all.

0128

In the configuration shown in above-mentioned drawing 7 , it is good noting that a cellular phone 701 has the function of the voice input section 301 shown in drawing 3 , and the information output section 310.

0129

Moreover, in the configuration shown in above-mentioned drawing 7 , it is good noting that a server 704 has the function of the speech recognition section 302 shown in drawing 3 , the retrieval type generation section 304, the retrieval section 306, and the retrieval result sort section 309.

0130

Moreover, in the configuration shown in above-mentioned drawing 7 , it is good noting that a database 705 has the function of the database 307 shown in drawing 3 .

0131

On the other hand, it is good noting that it has the function of the voice input section 501 a cellular phone 701 is indicated to be to drawing 5 , and the information output section 511 in the configuration shown in above-mentioned drawing 7 .

0132

Moreover, in the configuration shown in above-mentioned drawing 7 , it is good noting that a server 704 has the function of the speech recognition section 502 shown in drawing 5 , the retrieval type generation section 504, the retrieval type sort section 506, and the retrieval section 508.

0133

Moreover, in the configuration shown in above-mentioned drawing 7 , it is good noting that a database 705 has the function of the database 509 shown in drawing 5 .

0134

In addition, in the configuration shown in drawing 7 , instead of a cellular phone 701, though PDA, a mobile personal computer, and a car-navigation system are used, it is good.

0135

Moreover, the number of a cellular phone 701, a base station 702, a server 704, and databases 705 may not be limited to one, and may be the number of one or more arbitration.

0136

((The 2nd example) The example of application)

In the example 2 of application shown in drawing 8 , each operation gestalt of the system to offer information concerning this invention is equipped with the personal computer 802 equipped with the microphone 801, the network 803, the server 804, and the database 805.

0137

A personal computer 802 is a terminal which a user owns, and can deliver and receive information through a network 803.

0138

The personal computer 802 is connected with the server 804 through the network 803. Moreover, the server 804 is equipped with the database 805.

0139

In the configuration shown in above-mentioned drawing 8 , it is good noting that it has the function of the voice input section 301 by which a microphone 801 is shown in drawing 3 and a personal computer 802 has the function of the information output section 310 shown in drawing 3 .

0140

Moreover, in the configuration shown in above-mentioned drawing 8 , it is good noting that a server 804 has the function of the speech recognition section 302 shown in drawing 3 , the retrieval type generation section 304, the retrieval section 306, and the retrieval result sort section 309.

0141

Moreover, in the configuration shown in above-mentioned drawing 8 , it is good noting that a database 805 has the function of the database 307 shown in drawing 3 .

0142

On the other hand, it is good noting that it has the function of the voice input section 501 by which a microphone 801 is shown in drawing 5 and a personal computer 802 has the function of the information output section 511 shown in drawing 5 in the configuration shown in above-mentioned drawing 8 .

0143

Moreover, in the configuration shown in above-mentioned drawing 8 , it is good noting that a server 804 has the function of the speech recognition section 502 shown in drawing 5 , the retrieval type generation section 504, the retrieval type sort section 506, and the retrieval section 508.

0144

Moreover, in the configuration shown in above-mentioned drawing 8 , it is good noting that a database 805 has the function of the database 509 shown in drawing 5 .

0145

In addition, in the configuration shown in drawing 8 , as for the network 803 between a personal computer 802 and a server 804, the wireless circuit may be used in a part or all.

0146

Moreover, the number of a microphone 801, a personal computer 802, a server 804, and databases 805 may not be limited to one, and may be the number of one or more arbitration.

0147

((The 3rd example) The example of application)

In the example 3 of application shown in drawing 9 , each operation gestalt of the system to offer information concerning this invention is equipped with a server 904 and a database 905 equipped with the microphone 901, the display 902, and the loudspeaker 903.

0148

In the configuration shown in above-mentioned drawing 9 , it is good noting that it has the function of the voice input section 301 by which a microphone 901 is shown in drawing 3 and a display 902 or a loudspeaker 903 has the function of the information output section 310 shown in drawing 3 .

0149

Moreover, in the configuration shown in above-mentioned drawing 9 , it is good noting that a server 904 has the function of the speech recognition section 302 shown in drawing 3 , the retrieval type generation section 304, the retrieval section 306, and the retrieval result sort section 309.

0150

Moreover, in the configuration shown in above-mentioned drawing 9 , it is good noting that a database 905 has the function of the database 307 shown in drawing 3 .

0151

On the other hand, it is good noting that it has the function of the voice input section 501 by which a microphone 901 is shown in drawing 5 </A> and a display 902 or a loudspeaker 903 has the function of the information output section 511 shown in drawing 5 in the configuration shown in above-mentioned drawing 9 .

0152

Moreover, in the configuration shown in above-mentioned drawing 9 , it is good noting that a server 904 has the function of the speech recognition section 502 shown in drawing 5 , the retrieval type generation section 504, the retrieval type sort section 506, and the retrieval section 508.

0153

Moreover, in the configuration shown in above-mentioned drawing 9 , it is good noting that a database 905 has the function of the database 509 shown in drawing 5 .

0154

In addition, although distribution of the function of each part shown in drawing 3 or drawing 5 were illustrated in the above-mentioned example 1 of application, the example 2 of application, and the example 3 of application, these distribution are instantiation, and though the function of each part shown in drawing 3 or drawing 5 follows distributions other than above-mentioned distribution, it is good.

0155

Here, the configuration of the cellular phone 701 and server 704 which are shown in drawing 7 is explained with reference to drawing 10 and drawing 11 . Drawing 10 is the block diagram of the internal configuration of the cellular phone 701 shown in drawing 7 , and drawing 11 is the block diagram of the internal configuration of a server 704 shown in drawing 7 .

0156

As shown in drawing 10 , when a communication link is performed by the digital radio telephone line between predetermined fixed stations, other persons and the message of a cellular phone 701 are attained.

0157

In drawing 10 , CPU1001 is the system controller of the microcomputer configuration which controls actuation of the each circuit and components which are shown in drawing 10 .

0158

The antenna 1007 is connected to this cellular phone. The high frequency circuit (RF circuit is called below) 1008 is made to supply and restore to the signal of the predetermined frequency band (for example, 800MHz band) which this antenna 1007 received, and a recovery signal is supplied to the digital processing section 1009.

0159

The digital processing section 1009 is called a digital signal processor (DSP), and after it carries out various digital processings, such as a digital recovery, it is changed into an analog sound signal.

0160

Processing which extracts the output of the slot which needs digital processing in this digital processing section 1009 from the signal by which Time Division Multiplexing was carried out, and processing which carries out waveform equalization of the signal which carried out the digital recovery with an FIR filter are performed.

0161

And the changed analog sound signal is supplied to the voice circuit 1010, and analog speech processing, such as magnification, is made.

0162

And the sound signal which the voice circuit 1010 outputs is transmitted to the hand-set section 1011, and voice is made to output from loudspeaker 1011a included in this hand-set section 1011.

0163

Moreover, after transmitting a sound signal with the voice which microphone 1011b included in the hand-set section 1011 acquired to the voice circuit 1010 and carrying out analog speech processing, such as magnification, in this voice circuit 1010, it transmits to the digital processing section 1009.

0164
And after changing into a digitized voice signal in this digital processing section 1009, processing for transmission, such as a digital modulation, is performed.
0165
It is transmitted to the RF circuit 1008 and the processed digitized voice signal is modulated by the predetermined frequency band (for example, 800MHz band) for transmission. And a modulated wave is transmitted from an antenna 1007.
0166
In addition, the display 1012 by a liquid crystal display etc. is connected to the hand-set section 1011 of this example, and the information by various kinds of alphabetic characters, images, etc. can be displayed now on it.
0167
For example, a display may be controlled by the data with which this display 1012 is transmitted through a bus line from CPU1001, and the actuation at the time of the upgrade which mentions later when the accessed image of a homepage is displayed, or when the information about the message of the sent number to be dialed is displayed etc. may be displayed.
0168
Moreover, the key (un-illustrating) which performs alter operation, such as a number to be dialed, is attached in the hand-set section 1011.
0169
And each above-mentioned circuits 1008-1011 operate by control by CPU1001. And a control signal is transmitted to each circuits 1008-1011 through a control line from CPU1001.
0170
Moreover, CPU1001 is connected with each memory of EEPROM1002, 1st RAM1003, and 2nd RAM1004 through the bus line.
0171
In this case, EEPROM1002 can rewrite the data of some area by control of CPU1001, although the program of this cellular phone of operation is beforehand stored by the read-only memory of data.
0172
Moreover, 1st RAM1003 is the memory for the temporary storage of the data rewritten by EEPROM1002.
0173
Moreover, 2nd RAM1004 is memory the control data of the digital processing section 1009 is remembered to be.
0174
In this case, as for the bus line connected to 2nd RAM1004, it can be made to perform the change by the side of CPU1001 and the digital processing section 1009 through the bus switch 1006.
0175
It is only a time of the program of this cellular phone of operation being corrected that 2nd RAM1004 switches to the CPU1001 side with this bus switch 1006.
0176
Therefore, it is made for 1st RAM1003 to have connected in other condition the digital processing section 1009 side.
0177
Moreover, the cell 1005 for backup for disappearance prevention of stored data is connected to 2nd RAM1004.
0178
On the other hand, with this operation gestalt, it is possible to input into CPU1001 the data received from the outside.

0179
That is, 1013 in drawing shows the connector for connecting with the exterior, and enables it to have transmitted the data obtained by this connector 1013 to CPU1001.
0180
Next, the internal configuration of a server 704 shown in drawing 7 is explained with reference to drawing 11 . As shown in drawing 11 , a server 704 consists of CPU (Central Processing Unit)1101, the input section 1102, a primary storage 1103, the output section 1104, the secondary memory section 1105, and the clock section 1106.
0181
CPUs1101 are the components as the alias name processing section, and consist of a control section 1107 which sends an instruction to each part in a system, and controls the actuation, and operation part 1108 which performs data processing of digital data in the central part of a server.
0182
the other each part articles which this CPU1101 is a simple substance, or are shown in drawing 11 here -- or it collaborates with the program memorized by a primary storage 1103 and the secondary memory section 1105, and functions on the claim of this application as the speech recognition means of a publication, a retrieval type generation means, a retrieval means, a retrieval result rearrangement means, an information output means, and a retrieval type rearrangement means.
0183
A control section 1107 reads into a primary storage 1103 the data inputted from the input section 1102, and the procedure (for example, a program and software) given beforehand according to the timing of the clock which the clock section 1106 emits, and makes it order delivery data processing to operation part 1108 based on these read contents. The result of this data processing is transmitted to the device inside a primary storage 1103, the output section 1104, and secondary memory section 1105 grade, an external device, etc. based on control of a control section 1107.
0184
The input sections 1102 are the components for inputting various data, for example, can consider a keyboard, a mouse, a pointing device, a touch panel, a mouse pad, a CCD camera, a card reader, the paper tape reading section, the magnetic tape section, etc. In the case of this invention, audio input units, such as a microphone, can also be mentioned, for example.
0185
Primary storages 1103 are components called alias name memory, and are components which point out the storage space which is used in order to execute an instruction, and in which the address is possible in the processing section and the internal-storage section.
0186
This primary storage 1103 is mainly constituted by the semi-conductor storage element, and it reads this data by which storing maintenance is carried out to a register according to directions of a control section 1107 while it stores and holds the program and data which were inputted.
0187
Moreover, as a semi-conductor storage element which constitutes a primary storage 1103, RAM (Random Access Memory), ROM (Read Only Memory), etc. are mentioned.
0188
The output sections 1104 are the components for outputting the result of an operation of operation part 1108 etc., for example, the voice output sections, such as the printing sections, such as a display of CRT, a plasma display panel and a liquid crystal display, and others and a printer, and a loudspeaker, etc. correspond.
0189

Moreover, the secondary memory sections 1105 are the components for compensating the memory capacity of a primary storage 1103, and can use the record medium of CD-R of for example, the write-once system which can write in information besides being CD-ROM, a hard disk, etc., DVD-R, CD-RW of a phase change recording system, DVD-RAM, DVD+RW, PD, and an optical magnetic storage system, the record medium of a magnetic-recording system, the record medium of a RIMUBARU HDD system, and the record medium of a flash memory system for the medium used for this.

0190

Here, each part of the above is mutually connected by the bus 1109.

0191

Moreover, in this operation gestalt, if there is the unnecessary section among each part shown in drawing 11 , it can be deleted suitably. For example, the display which constitutes the output section 1104 may become unnecessary, and the output section 1104 may become unnecessary in this operation gestalt in this case.

0192

Moreover, the number of the above-mentioned primary storage 1103 and the secondary memory section 1105 may not be limited each to one, and may be the number of arbitration. If the number of these above-mentioned primary storage 1103 and the secondary memory section 1105 increases, the failure-proof nature of a server will improve so much.

0193

In addition, the various programs concerning this invention are memorized by either even if there are little above-mentioned primary storage 1103 and secondary memory section 1105 (record).

0194

Therefore, even if there are little above-mentioned primary storage 1103 and secondary memory section 1105, as for the record medium which recorded the program concerning this invention and in which computer reading is possible, either may correspond.

0195

Moreover, it is good though it not only uses the secondary memory section 1105 as a database, but the database server connected with this server is used.

0196

Moreover, although the above-mentioned explanation explained only the internal configuration of a server 704 shown in drawing 7 , the internal configuration of the personal computer 802 shown in drawing 8 , a server 804, and the server 904 shown in drawing 9 is the same as the configuration shown in drawing 11 , and the same explanation is realized.

0197

In addition, although the score was used as priority in explanation of the above-mentioned operation gestalt, the ranking of a keyword and the weight for every attribute set up beforehand can determine this priority, for example also except a score.

0198

Effect of the Invention

As explained above, according to this invention, the count of a check of a recognition result can be ** carried out, and the burden of the processing time and a user can be reduced.

0199

Moreover, according to this invention, the leakage in retrieval can be reduced.

0200

Moreover, according to this invention, when two or more retrieval results are obtained, a right retrieval result can be obtained quickly.

Brief Description of the Drawings

Drawing 1 It is the conceptual diagram which can be set in the 1st operation gestalt of the system to offer information concerning this invention and in which showing the 1st example of the concept of the retrieval from two or more recognition results.
Drawing 2 It is the conceptual diagram which can be set in the 1st operation gestalt of the system to offer information concerning this invention and in which showing the 2nd example of the concept of the retrieval from two or more recognition results.
Drawing 3 It is the 1st whole operation gestalt block diagram of the system to offer information concerning this invention.
Drawing 4 It is the flow chart of actuation of the system to offer information shown in drawing 3 .
Drawing 5 It is the 2nd whole operation gestalt block diagram of the system to offer information concerning this invention.
Drawing 6 It is the flow chart of actuation of the system to offer information shown in drawing 5 .
Drawing 7 It is the schematic diagram of the 1st example of the example of application of each operation gestalt of the system to offer information concerning this invention shown in drawing 3 and drawing 5 .
Drawing 8 It is the schematic diagram of the 2nd example of the example of application of each operation gestalt of the system to offer information concerning this invention shown in drawing 3 and drawing 5.
Drawing 9 It is the schematic diagram of the 3rd example of the example of application of each operation gestalt of the system to offer information concerning this invention shown in drawing 3 and drawing 5.
Drawing 10 It is the block diagram of the internal configuration of the cellular phone 701 shown in drawing 7.
Drawing 11 It is the block diagram of the internal configuration of a server 704 shown in drawing 7.

Description of Notations

301 Voice Input Section
302 Speech Recognition Section
303 Recognition Result
304 Retrieval Type Generation Section
305 Retrieval Type
306 Retrieval Section
307 Database
308 Retrieval Result
309 Retrieval Result Sort Section
310 Information Output Section
501 Voice Input Section
502 Speech Recognition Section
503 Recognition Result
504 Retrieval Type Generation Section
505 Retrieval Type
506 Retrieval Type Sort Section
507 Retrieval Type
508 Retrieval Section
509 Database
510 Retrieval Result
511 Information Output Section
701 Cellular Phone
702 Base Station
703 Network
704 Server

705 Database
801 Microphone
802 Personal Computer
803 Network
804 Server
805 Database
901 Microphone
902 Display
903 Loudspeaker
904 Server
905 Database
1001 CPU
1002 EEPROM
1003 1st RAM
1004 2nd RAM
1005 Cell for Backup
1006 Bus Switch
1007 Antenna
1008 RF Circuit
1009 Digital Processing Section
1010 Voice Circuit
1011 Hand-Set Section
1011a Loudspeaker
1011b Microphone
1012 Display
1013 Connector
1101 CPU
1102 Input Section
1103 Primary Storage
1104 Output Section
1105 Secondary Memory Section
1106 Clock Section
1107 Control Section
1108 Operation Part
1109 Bus

Brief Description of the Drawings

Drawing 1 It is the conceptual diagram which can be set in the 1st operation gestalt of the system to offer information concerning this invention and in which showing the 1st example of the concept of the retrieval from two or more recognition results.

Drawing 2 It is the conceptual diagram which can be set in the 1st operation gestalt of the system to offer information concerning this invention and in which showing the 2nd example of the concept of the retrieval from two or more recognition results.

Drawing 3 It is the 1st whole operation gestalt block diagram of the system to offer information concerning this invention.

Drawing 4 It is the flow chart of actuation of the system to offer information shown in drawing 3.

Drawing 5 It is the 2nd whole operation gestalt block diagram of the system to offer information concerning this invention.

Drawing 6 It is the flow chart of actuation of the system to offer information shown in drawing 5.

Drawing 7 It is the schematic diagram of the 1st example of the example of application of each operation gestalt of the system to offer information concerning this invention shown in drawing 3 and drawing 5.
Drawing 8 It is the schematic diagram of the 2nd example of the example of application of each operation gestalt of the system to offer information concerning this invention shown in drawing 3 and drawing 5.
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Description of Notations
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302 Speech Recognition Section
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304 Retrieval Type Generation Section
305 Retrieval Type
306 Retrieval Section
307 Database
308 Retrieval Result
309 Retrieval Result Sort Section
310 Information Output Section
501 Voice Input Section
502 Speech Recognition Section
503 Recognition Result
504 Retrieval Type Generation Section
505 Retrieval Type
506 Retrieval Type Sort Section
507 Retrieval Type
508 Retrieval Section
509 Database
510 Retrieval Result
511 Information Output Section
701 Cellular Phone
702 Base Station
703 Network
704 Server
705 Database
801 Microphone
802 Personal Computer
803 Network
804 Server
805 Database
901 Microphone
902 Display
903 Loudspeaker
904 Server
905 Database
1001 CPU
1002 EEPROM
1003 1st RAM

1004 2nd RAM
1005 Cell for Backup
1006 Bus Switch
1007 Antenna
1008 RF Circuit
1009 Digital Processing Section
1010 Voice Circuit
1011 Hand-Set Section
1011a Loudspeaker
1011b Microphone
1012 Display
1013 Connector
1101 CPU
1102 Input Section
1103 Primary Storage
1104 Output Section
1105 Secondary Memory Section
1106 Clock Section
1107 Control Section
1108 Operation Part
1109 Bus

Drawing 1

Drawing 2

Drawing 3

Drawing 4

Drawing 5

Drawing 6

Drawing 7

Drawing 8

Drawing 9

Drawing 10

Drawing 11